

POOR LEGIBILITY

**ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ
DUE TO THE QUALITY OF THE ORIGINAL**

THE FOLLOWING SITES ARE NOT LISTED ON CERCLIS AND NO SIFS HAVE BEEN GENERATED FOR THEM. PER THE INSTRUCTION OF DOM DIANE WHITE, THEY WERE INDEXED ON IMAGETRAX AND 6-PART FOLDERS WERE SET UP FOR THEM IN ORDER TO FACILITATE RETRIEVAL OF DOCUMENTS:

NAVAJO BLACK JACK MINE #2
NND980879399 IT#5098

NAVAJO HAYSTACK SITE
NND980875900 IT#5100

NAVAJO SHIPROCK DRUM SITE
NND980798169 IT#5095

NAVAJO SHIPROCK O&M MAIN YARD DRUM SITE
NND986667723 IT#5097

NAVAJO WESTERN NUCLEAR MINE SPOIL PILE
NND981153927 IT#5096

B. Chertowsky, ads
EPA Superfund Records
Center
2/13/97



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

1445 ROSS AVENUE, SUITE 1200

DALLAS TEXAS 75202-2733

10/20/94 Kim Hill
HAVE COPIED AND
SENT

October 17, 1994

MEMORANDUM

SUBJECT: Navajo Sites in CERCLIS

FROM: Kim T. Hill (6H-MA)
Site Assessment Manager
New Mexico and Indian Nations

TO: File
C. Douglas (9...) ←

HELP?

The prefix of 'Navajo' has been added to the following names of sites in CERCLIS to provide consistency throughout the database:

NMD980879399	Black Jack #2 Mine
NMD986669117	Brown Uranium Mine
same NMD986669190	Chavez Lease Uranium Mine
✓ NMD069409522	Four Corners Generating Station
NMD980875900	Haystack Site
NMD986669109	Nana-A-Bah Uranium Mines
NMD980798169	Shiprock Drum Site
NMD986667723	Shiprock O&M Main Yard Drum Site
✓ NMD986667772	Tohatchie Dip Vat
NMD981153927	Western Nuclear Mine - Spoil Pile

Handwritten notes:
 NMD986669190 NAVJO - CHAVEZ LEASE URANIUM MINE
 NMD986669530 A2 PUBLIC SITE
 SI STATE 10/12/94
 NMD986669646 8/6/91 H - OAKSPRINGS DIP VAT

If you have any questions concerning these changes, please contact me directly at 214/665-6672.

10/17 CALLED CHAIRS TO CHECK ON DUES.

10/20 CALLED L PROVIDE A CERCLIS PRINTOUT & FILE

6H-MA:KHILL:kh:f:\user\khill\misc\memos\namechg.mem:10/17/94



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS TEXAS 75202-2733

October 20, 1994

MEMORANDUM

SUBJECT: Navajo Sites in CERCLIS

FROM: Kim T. Hill (6H-MA)
Site Assessment Manager
New Mexico and Indian Nations

TO: File
C. Douglas, Navajo Nation Cooperative Agreement Manager,
Region 9
J. Quint, Site Assessment Manager, Region 9

The prefix of 'Navajo' has been added to the following names of sites in CERCLIS to provide consistency throughout the database:

	QUALIFIER	COMMENT
NMD980879399 Black Jack #2 Mine	L	NEEDS SIP
NMD986669117 Brown Uranium Mine	N	NA
NMD986669190 Chavez Lease Uranium Mine	N	REOPENED FOR SIP
NMD069409522 Four Corners Generating Station	N	
NMD980875900 Haystack Site	L	NEEDS SIP
NMD986669109 Nana-A-Bah Uranium Mines	N	NA
NMD980798169 Shiprock Drum Site	N	REOPENED FOR SIP
NMD986667723 Shiprock O&M Main Yard Drum Site	N	
NMD986667772 Tohatchie Dip Vat	L	NEEDS SIP
NMD981153927 Western Nuclear Mine - Spoil Pile	L	

In addition, these site files will be transferred to Region 9 for additional site assessment activities and final disposition.

If you have any questions concerning these changes, please contact me directly at 214/665-6672.

6H-MA:KHILL:kh:f:\user\khill\misc\memos\navajo.mem:10/20/94

5100



POTENTIAL HAZARDOUS WASTE SITE LOG

SITE NUMBER

NM01708

NOTE: The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

SITE NAME AND STREET ADDRESS (or other identifier)

Daystar Sub

CITY

Bluewater

STATE

NM

ZIP CODE

SUMMARY OF POTENTIAL OR KNOWN PROBLEM

ITEM	DATE OF DETERMINATION OR COMPLETION	RESPONSIBLE ORGANIZATION OR INDIVIDUAL (EPA, State, Contractor, Other)	PERSON MAKING ENTRY TO LOG FORM	DATE ENTERED ON LOG (mo, day, yr)
1. IDENTIFICATION OF POTENTIAL PROBLEM	7-11-84	State of NM	Newman	7-11-84
2. PRELIMINARY ASSESSMENT	6-1-84	EPA	Newman	11-10-87
APPARENT SERIOUSNESS OF PROBLEM: <input type="checkbox"/> HIGH <input type="checkbox"/> MEDIUM <input type="checkbox"/> LOW <input type="checkbox"/> NONE <input type="checkbox"/> UNKNOWN				
3. SITE INSPECTION				
4. EPA TENTATIVE DISPOSITION (check appropriate item(s) below)				
<input type="checkbox"/> a. NO ACTION NEEDED				
<input type="checkbox"/> b. INVESTIGATIVE ACTION NEEDED				
<input type="checkbox"/> c. REMEDIAL ACTION NEEDED				
<input type="checkbox"/> d. ENFORCEMENT ACTION NEEDED				
5. EPA FINAL STRATEGY DETERMINATION (check appropriate item(s) below)				
<input checked="" type="checkbox"/> a. NO ACTION NEEDED	1-28-86	Rayner	Newman	5-7-86
<input type="checkbox"/> b. REMEDIAL ACTION NEEDED				
<input type="checkbox"/> c. REMEDIAL ACTION NEEDED BUT, NO RESOURCES AVAILABLE				
<input type="checkbox"/> d. ENFORCEMENT ACTION NEEDED				
<input type="checkbox"/> (1) CASE DEVELOPMENT PLAN PREPARED				
<input type="checkbox"/> (2) ENFORCEMENT CASE FILED OR ADMINISTRATIVE ORDER ISSUED				
6. STRATEGY COMPLETED				

SUPERFUND

FILE

MAY 20 1992

REORGANIZED

MEMORANDUM TO FILE

EPA ID NUMBER: NMD980875900

SITE NAME: Haystack Site

FILE REOPENED TO CONDUCT SITE INSPECTION PRIORITIZE
(PRESCORE) ON 2/15/91.

Linda Zalk
NAME


3/30/91
DATE

SUPERFUND
FILE

MAY 20 1992

REORGANIZED

hm

		POTENTIAL HAZARDOUS WASTE SITE		REGION	SITE NUMBER (to be assigned by HQ)
		IDENTIFICATION AND PRELIMINARY ASSESSMENT		6	NMD 980875900
<p>NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.</p> <p>GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.</p>					
I. SITE IDENTIFICATION					
A. SITE NAME		B. STREET (or other identifier)			
Haystack Site		Approx. 7 mi N. of Bluewater			
C. CITY	D. STATE	E. ZIP CODE	F. COUNTY NAME		
Bluewater	NM	87005	McKinley		

A preliminary assessment form 2070-2 was not completed for this site. However, HRS Package was completed on 6-1-84 and includes information which would have been covered in a preliminary assessment of the site.

Shewman
11-6-87

SUPERFUND
FILE

MAY 20 1992

REORGANIZED



POTENTIAL HAZARDOUS WASTE SITE
FINAL STRATEGY DETERMINATION

EPA

REGION 6 SITE NUMBER NM 01708

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME HANSTACK SITE RMD 980875900
B. STREET APPROX. 7 mi N of BLUEWATER
C. CITY BLUE WATER (McKINLEY COUNTY)
D. STATE NM
E. ZIP CODE 87005

II. FINAL DETERMINATION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY			
		EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED		X			
B. REMEDIAL ACTION NEEDED, BUT NO RESOURCES AVAILABLE (If yes, complete Section III.)					
C. REMEDIAL ACTION (If yes, complete Section IV.)	DOE				
D. ENFORCEMENT ACTION (If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)					

E. RATIONALE FOR FINAL STRATEGY DETERMINATION

The site is an inactive uranium mill with uranium ore tailings and an excavation pit.

The Department of Energy (Albuquerque, NM) is considering this site as a Vicinity Property, and is addressing it under the Uranium mill Tailings Radiation Control Act (UMTRCA).

F. IF A CASE DEVELOPMENT PLAN HAS BEEN PREPARED, SPECIFY THE DATE PREPARED (mo., day, & yr.).
G. IF AN ENFORCEMENT CASE HAS BEEN FILED, SPECIFY THE DATE FILED (mo., day, & yr.).

H. PREPARER INFORMATION

1. NAME Smyth, L. L. 6H-ES
2. TELEPHONE NUMBER (214) 767-6417
3. DATE (mo., day, & yr.) 4/28/86

III. REMEDIAL ACTIONS TO BE TAKEN WHEN RESOURCES BECOME AVAILABLE

List all remedial actions, such as excavation, removal, etc. to be taken as soon as resources become available. See instructions for a list of Key Words for each of the actions to be used in the spaces below. Provide an estimate of the approximate cost of the remedy.

A. REMEDIAL ACTION	B. ESTIMATED COST	C. REMARKS
	\$	
	\$	
	\$	
	\$	
	\$	
	\$	SUPERFUND FILE
	\$	MAY 20 1992
	\$	REORGANIZED
D. TOTAL ESTIMATED COST	\$	

CC: McCabe 6H-EC

IV. REMEDIAL ACTIONS

A. SHORT TERM/EMERGENCY ACTIONS (On Site and Off-Site): List all emergency actions taken or planned to bring the site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. ACTION START DATE (mo, day, & yr)	3. ACTION END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)	5. COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED.
				\$	
				\$	
				\$	
				\$	
				\$	
				\$	

B. LONG TERM STRATEGY (On Site and Off-Site): List all long term solutions, e.g., excavation, removal, ground water monitoring, wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. ACTION START DATE (mo, day, & yr)	3. ACTION END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)	5. COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED.
				\$	
				\$	
				\$	
				\$	
				\$	
				\$	

C. MANHOURS AND COST BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL MAN- HOURS FOR REMEDIAL ACTIVITIES	3. TOTAL COST FOR REMEDIAL ACTIVITIES
a. EPA		\$
b. STATE		\$
c. PRIVATE PARTIES		\$
d. OTHER (specify):		\$

RECORD OF COMMUNICATION	<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY)	
TO: Scott Wright, Weston-Sper Technical Assistance Team	FROM: Mary Ellen Crowley GES-EF	DATE 7/3/85 TIME 8:35
SUBJECT Mariano Lake and Haystack sites, New Mexico. NMD1716 NMD1708 / NMD1724 NMD980825900		
SUMMARY OF COMMUNICATION <p>I asked Scott Wright about action taken towards removing radioactive mine tailings at the Mariano Lake and Haystack sites.</p> <p>Scott said the Department of Energy ^(DOE) out of Albuquerque, NM, considers these sites as Vicinity Properties and is approaching them under the Uranium Mill Tailings Reclamation Act (UMTRA). DOE is presently taking actions to assess the extent of radiation hazard and to design a plan of attack to mitigate the radiation hazard at those sites considered Vicinity Properties.</p>		
CONCLUSIONS, ACTION TAKEN OR REQUIRED <p>FYI</p> <p style="text-align: right;">SUPERFUND FILE MAY 20 1992 REORGANIZE</p>		
INFORMATION COPIES TO: Gerald Fontenot, Russell Bartley, file		

out

NM 1708

APR 16 1985

MEMORANDUM

SUBJECT: Marino Lake and Haystack Sites in New Mexico *NAD 980875900*
FROM: Russell Bartley, Chief
Technical Section, 6AW-ST
TO: Charles Gazda, Chief
Emergency Response Branch, 6ES-E }

The Marino Lake and Haystack sites are located in New Mexico on Navajo land. The sites which have been contaminated from uranium ore processing, were submitted by the Navajos for possible inclusion on the NPL.

We request you review the site data to determine whether a removal action may be necessary. The file may be obtained from Martha McKee.

6AW-SC 4/15
McKee 4/15/85
6AW-ST-HITT-4/12/85-Disk #9/9

SUPERFUND
FILE

MAY 20 1992

REORGANIZE!



POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION

REGION

SITE NUMBER

6

N.M. 01708

NOTE: The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

A. SITE NAME

HAYSTACK Site NMD 980 875900

B. STREET (or other identifier)

APPROX. 7 MILES NORTH OF BLUEWATER

C. CITY

~~HAYSTACK~~ Blue water

D. STATE

N.M.

E. ZIP CODE

87005

F. COUNTY NAME

MCKINLEY

031

G. OWNER/OPERATOR (if known)

1. NAME

UNKNOWN

2. TELEPHONE NUMBER

H. TYPE OF OWNERSHIP (if known)

☐ 1. FEDERAL☐ 2. STATE☐ 3. COUNTY☐ 4. MUNICIPAL☐ 5. PRIVATE☒ 6. UNKNOWN

I. SITE DESCRIPTION

INACTIVE URANIUM MILL SITE. EXCAVATION FOR URANIUM ORE
HAS LEFT BEHIND LARGE PIT.

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.)

State of NM

K. DATE IDENTIFIED
(mo., day, & yr.)

L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM

CONCERNED WITH CONTAMINATION OF SURFACE AND GROUND WATERS
WITH URANIUM ORE TAILINGS.

SUPERFUND
FILE

MAY 20 1992

RECORDED

M. PREPARER INFORMATION

1. NAME

ROBERT C. WILSON

2. TELEPHONE NUMBER

767-9712

3. DATE (mo., day, & yr.)

7/10/84

RECORD OF COMMUNICATION

☒ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

(Record of item checked above)

TO: BOB WILSON
6AW-50

FROM: TOMMY BEGAY
NAYAJD ENVIRON. PROTECTION
(602) 871-6534 or 6536

DATE
6/7/84
TIME
3:00 PM

SUBJECT

URANIUM ORE MINE SITES HAYSTACK SITE NMD 980 875 900

SUMMARY OF COMMUNICATION

CAMERON, ARIZ

1) SITE @ SECT 14, T29N, R9E

GROUNDWATER: WASH ALLUVIUM, 10 to 15 FOOT DEPTH USED FOR LIVESTOCK
SHIMARUM, 50 to 100 FOOT DEPTH USED FOR DRINKING WATER

2) SITE @ SECT , T28N, R10E

APPROX WASTE QUANTITY: 5,600 yd³

POPULATION: APPROX. 250 WITHIN 8 SQ MILES OF THE SITE

WELL IS LOCATED APPROX. 100 YARDS FROM THE SITE

SOILS TYPE: ALLUVIUM

MARIANO, N.M.

SITE @ SECT 18, T15N, R13W

POPULATION: 200

LAKE LOCATED 1 MILE NORTHEAST OF SITE, USED FOR LIVESTOCK

GROUNDWATER: DAKOTA SANDSTONE, 100 to 150 FOOT DEPTH

HAYSTACK, N.M.

SITE @ SECT 23, T13N, R10W

POPULATION: 40 to 50

NEAREST BUILDING LOCATED ~ 75 YARDS FROM THE SITE

AQUIFERS IN THE AREA: MORRISON FORMATION, BRUSH BASIN, BLUE WATER CANTON
& THE CHIMNEY AQUIFER

CONCLUSIONS, ACTION TAKEN OR REQUIRED

SUPERFUND
FILE

MAY 20 1992

INFORMATION COPIES

TO:

RECORD OF COMMUNICATION		<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY) _____	
		(Record of item checked above)	
TO: BOB WILSON 6AW SO	FROM: TOMMY BEGAY NAVATO ENVIR. PROTECTION (602) 871-6534	DATE 5/25/84	TIME 11:00 AM
SUBJECT URANIUM MINE ORE SITES HAYSTACK SITE NALD980875900			
SUMMARY OF COMMUNICATION CALLED TO PROVIDE THE FOLLOWING INFORMATION ON THE URANIUM SITES IN ARIZONA & NEW MEXICO: <u>CAMERON, ARIZ. (SECT 14, T29N, R9E)</u> NEAREST SURFACE WATER ~ 100 YARDS USED FOR CATTLE NEAREST WELL OR BUILDING ~ 150 YARDS SOUTHWEST, TRADING POST POPULATION ESTIMATED AT 75 <u>MARIANO LAKE, N.M.</u> NEAREST SURFACE WATER ~ 7 MILES NEAREST WELL OR BUILDING ~ 1/2 MILE POPULATION ESTIMATED AT 50 to 75 <u>HAYSTACK, N.M.</u> NEAREST SURFACE WATER IS THE SITE ITSELF. PIT LEFT BEHIND FROM URANIUM MINING FILLS WITH WATER DURING HEAVY RAINS NEAREST WELL OR BUILDING ~ 150 YARDS POPULATION ESTIMATED AT 15 PEOPLE			
CONCLUSIONS, ACTION TAKEN OR REQUIRED WILL PROVIDE FURTHER INFORMATION UPON COMPLETION OF A FIELD SURVEY.			
SUPERFUND FILE MAY 20 1992 REORGANIZED			
INFORMATION COPIES TO: _____			

HAYSTACK, N.M.

PETERSON ZAH

CHAIRMAN, NAVAJO TRIBAL COUNCIL



EDWARD T. BEGAY

VICE CHAIRMAN, NAVAJO TRIBAL COUNCIL

March 12, 1984

MEMORANDUM

TO : Louise A. Linkin, Director
Environmental Protection

FROM : Tommy K. Begay, Jr.
Environmental Protection

HAYSTACK SITE
NM D980875900

for Marie Ann Clarke
Julius Bitsilly, Environmental Tech.
Environmental Protection

SUBJECT: Field Trip report to Cameron, AZ on March 2, 1984 to obtain extended training in utilizing radiological equipment offered by Dr. John McKlveen, Director of the Radiation Research Laboratory at Arizona State University (ASU).

OBJECTIVE: The intent of the field trip had been to obtain further training in utilizing radiation detecting instruments. However, upon arrival we discovered a huge pile (approximately 150,000 cubic yards) of low grade ore in Section 14, T29N, R9E. To get to the pile from Cameron, follow U.S. 89 north for approximately 3/4 of a mile, turn right (east) at the landfill turnoff. The pile is approximately 1/4 mile from this point.

Dr. McKlveen had previously researched this area thoroughly at ASU before coming to the training session and discovered that this pile was once used for the site of a central loading area for all the uranium ore mined in this area. But he is unsure of the responsible parties involved in hauling and mining of this uranium ore. He speculates that this was the work of a one-man operation; however, he is currently investigating this matter further. He will inform this office (NEPA) of additional information in the near future.

Currently, there is no information pertaining to this pile in our files, however, we are still searching.

FINDINGS: The survey of this area consisted of taking radiological measurements with a Ludlum Model No. 19 Micro R Meter at random intervals. The units used are in micro roentgens per hour.

SUPERFUND
FILE

MAY 20 1992

REORGANIZED

The average background level for this area was approximately 20 uR/hr. This reading was taken approximately 100 yards from the pile. On top of the pile we recorded readings in the range of 300-500 uR/hr. Just to the north of the pile is a small pond approximately 150 yards away. This provides water to much of the livestock in the immediate area. It may pose a potential hazard to livestock owners whom rely on these animals for their main meat source.

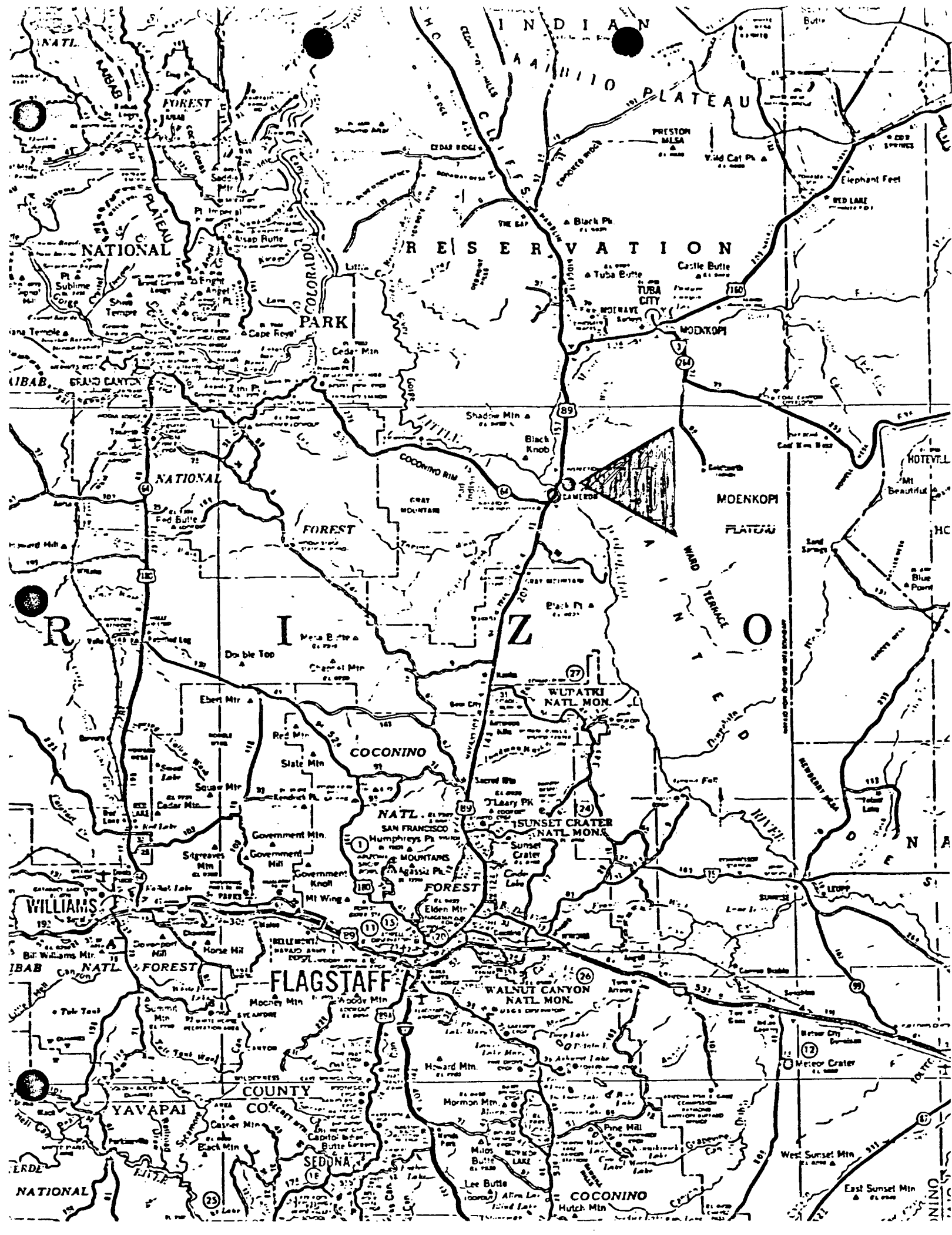
Also, located approximately 75 yards away in an eastern direction is what appears to be an open pit mine in an arroyo. There are small white mounds of clay (15 cubic yards) that produced readings of approximately 300 uR/hr. Presently, this area is being further investigated by Dr. McKlveen and personnel from this office.

CONCLUSION: In summary, the radiological measurements taken were in the range of 300-500 uR/hr. which is exceptionally high for this particular area (background approx. 20 uR/hr). This pile presents a major health hazard to people and livestock living in the area. The hazard results from alpha particles found in the dust and ore of these piles. If these particles enter a living organism, they may inflict cellular damage depending upon the rate of the dose. Therefore, a plan for reclamation needs to be created.

RECOMMENDATION: As follows:

- 1) The Chapter House officials of Cameron need to be notified of the potential hazard this pile provides.
- 2) A fence needs to be installed around the pile and around the water pond (north of pile). Along, with this fence, signs should be posted to nullify the hazards involved with the pile.
- 3) This low grade ore may be process for profit, depending upon the economic feasibility of such a task.
- 4) A reclamation program needs to be thoroughly planned and implemented as soon as possible.
- 5) In the near future, a more detailed radiological study will be done on this pile by staff of this office and Dr. McKlveen. It is hoped that a tour may be arranged for affected Navajo tribal departments and the State regulatory department.

If there are any questions or comments pertaining to this field trip, please contact me or Julius Bitsilly at 602/871-6534-6536.



B. Radiological Survey at Haystack, New Mexico (Berry Hill Project)

a. Future activities:

On Wednesday, March 17, 1984, the completion of the previously started Berry Hill land status radiological survey will be conducted. At the request from the ONLD, the NEPA will conduct a grid survey of Section 23 T13N; R10W near Haystack, NM to determine the extent of radiological contamination in this area which is located near an abandoned uranium mine.

A final report will be submitted by the end of this week (March 9, 1984).

C. The Uranium Ore in Cameron, Arizona.

a. Past activities

On March 2, 1984, while participating in a training session in Cameron, Arizona conducted by Dr. John McKlveen, Ionized Radiation Professor from Arizona State University, Julius Bitsilly and I discovered a large pile (approx. 150,000 cubic yards) of dry, brown materials which Dr. McKlveen explained to us was low grade ore.

The pile is located 3/4 mile north of Cameron on U.S. 89. From this paved road the pile is located another 1/4 mile in a eastward direction (on the right side coming from Cameron). This dirt road leads to a community landfill.

Dr. McKlveen has researched this area thoroughly (ASU) and discovered that this was once the site of a central loading area for the uranium hauling trucks of this area. But he is unsure as to whom may be responsible for the mining nor whom may be responsible for the hauling of this ore. He speculates that this was the work of a one-man operation; however, he is investigating as to whom the responsible parties involved are.

As of this moment, because of the time factor, we (NEPA) have not found anything regarding this pile in our files. We are still searching. A more detailed report will be submitted in the near future.

In summary, the radiological readings taken from a Ludlum Model #19 Micro R Meter were in the range of 400-500 uR/hr., which is

exceptionally high for this particular area (background approx. 15 uR/hr.) To complicate matters further, this site is used as a recreational area for four wheel drive vehicles and motorcycles. The use of this area for this purpose creates a lot of dust which is easily inhaled by the participants. Located around this large pile are small outcroppings of ore.

At this time, Dr. McKlveen is notifying the appropriate state regulatory agency, hoping that action will be taken to remove or secure this pile. He will notify this office of all steps he is taking, therefore, keeping the Navajo Nation informed. Perhaps, if this location is on the Navajo reservation (not yet confirmed), a tour can be arranged for all concerning departments of the Navajo Nation. A soil sample of the pile was taken and the results will be presented in a more detailed report.

D. Status Report Regarding the Construction Rebar Radiological Surveys

Since the latter part of January, 1984, Julius Bitsilly has been conducting radiological surveys on construction rebar suspected to be contaminated. The rebar surveyed is pre-construction to be used in various projects on the Navajo reservation.

To this date, there have been no radioactive rebar found on the reservation, however Julius and I will continue to do surveys per request.

E. The Radiological Experiment to be conducted by an Area High School Student with the Assistance of this office.

a. Future activities:

Paula Brown from Ganado High School is seeking assistance with conducting a radiological experiment for a local science fair. Briefly, the experiment will consist of detecting the ionized radiological effect on various fish tissues and organs. Uranium ore, Uranium mill tailings and a Thorium source will be utilized in the experiment following a short introduction to the total aspect of ionized radiation and the effects on biological life. The experiment is scheduled to begin the latter part of this week and will be terminated in early April.

This concludes the status report for the week of March 5, 1984. If there are any questions regarding this report, please feel free to contact me at ext: 1534-1536.

June 28, 1982

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: HAYSTACK SITE

NMD980875900

LOCATION: HAYSTACK, N.M.

SUPERFUND
FILE

MAY 20 1992

REORGANIZED

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

NO SAMPLES TAKEN

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

CHIMNEY AQUIFER

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

UNKNOWN (ASSUME 50 FT)

Depth from the ground surface to the lowest point of waste disposal/storage:

UNKNOWN

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

12 " (HRS FIG. 5)

Mean annual lake or seasonal evaporation (list months for seasonal):

51 " (HRS FIG. 4)

Net precipitation (subtract the above figures):

-39 "

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

UNKNOWN

Permeability associated with soil type:

$< 10^{-3}$ (ASSUMED)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

PIT EXPOSED URANIUM ORE (ASSUME LIQUID)

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

HEAVY METALS

Compound with highest score:

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

UNKNOWN ASSUME MAX

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

DOMESTIC & CATTLE

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

~ HOUSES

Distance to above well or building:

~ 75 YARDS

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

UNKNOWN

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

UNKNOWN

Total population served by ground water within a 3-mile radius:

50

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

ND SAMPLES TAKEN

Rationale for attributing the contaminants to the facility:

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Name/description of nearest downslope surface water:

Average slope of terrain between facility and above-cited surface water body in percent:

Is the facility located either totally or partially in surface water?

YES

Is the facility completely surrounded by areas of higher elevation?

YES

1-Year 24-Hour Rainfall in Inches

1.25 (HAS RACKDOE)

Distance to Nearest Downslope Surface Water

1 MILE

Physical State of Waste

UNKNOWN

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

UNKNOWN

Method with highest score:

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

HEAVY METALS

Compound with highest score:

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

UNKNOWN ASSUME MAXIMUM

Basis of estimating and/or computing waste quantity:

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

RECREATION, CATTLE, IRRIGATION

Is there tidal influence?

NO

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

NONE

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

NONE

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

NONE

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

Computation of land area irrigated by above-cited intake(s) and
conversion to population (1.5 people per acre):

UNKNOWN ASSUME 20 ACRES

Total population served:

30

Name/description of nearest of above water bodies:

UNNAMED LAKE

Distance to above-cited intakes, measured in stream miles.

1 MILE

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

Date and location of detection of contaminants

Methods used to detect the contaminants:

Rationale for attributing the contaminants to the site:

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

Facility name: HAYSTACK

Location: HAYSTACK MOUNTAIN, NEAR BLUE WATER, N.M.

EPA Region: VI

Person(s) in charge of the facility: UNKNOWN

Name of Reviewer: BOB WILSON Date: 6/1/84

General description of the facility:
 (For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

PIT LEFT BEHIND FROM URANIUM MINING.

RESIDUE FROM MINING OPERATIONS WAS LEFT

BEHIND. DURING RAINS PIT FILLS WITH WATER

CARRY RESIDUE OFF SITE, POSSIBLE DOWNWARD

. MIGRATION OF HEAVY METALS TO DRINKING WATER

AQUIFER.

Scores: $S_M = 15.91$ ($S_{gw} = 25.91$) $S_{sw} = 9.45$ $S_a = 0$

$S_{FE} = -$

$S_{DC} = 12.50$

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	<u>0</u> 45	1	<u>0</u>	45	3.1	
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .						
2 Route Characteristics					3.2	
Depth to Aquifer of Concern	0 1 <u>2</u> 3	2	<u>4</u>	6		
Net Precipitation	<u>0</u> 1 2 3	1	<u>0</u>	3		
Permeability of the Unsaturated Zone	0 1 2 <u>3</u>	1	<u>3</u>	3		
Physical State	0 1 2 <u>3</u>	1	<u>3</u>	3		
Total Route Characteristics Score			<u>10</u>	15		
3 Containment	0 1 2 <u>3</u>	1	<u>3</u>	3	3.3	
4 Waste Characteristics					3.4	
Toxicity/Persistence	0 3 6 9 12 15 <u>18</u>	1	<u>18</u>	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 <u>8</u>	1	<u>8</u>	8		
Total Waste Characteristics Score			<u>26</u>	26		
5 Targets					3.5	
Ground Water Use	0 1 2 <u>3</u>	3	<u>9</u>	9		
Distance to Nearest Well/Population Served	0 4 6 8 <u>10</u> 12 16 18 20 24 30 32 35 40	1	<u>10</u>	40		
Total Targets Score			<u>19</u>	49	<u>29</u>	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			<u>14820</u>	57,330		
7 Divide line 6 by 57,330 and multiply by 100			$S_{gw} = \underline{25.85}$			

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	0	45	4.1	
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .						
2 Route Characteristics					4.2	
Facility Slope and Intervening Terrain	0 1 2 3	1	3	3		
1-yr. 24-hr. Rainfall	0 1 2 3	1	1	3		
Distance to Nearest Surface Water	0 1 2 3	2	6	6		
Physical State	0 1 2 3	1	3	3		
Total Route Characteristics Score			13	15		
3 Containment	0 1 2 3	1	3	3	4.3	
4 Waste Characteristics					4.4	
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8		
Total Waste Characteristics Score			26	26		
5 Targets					4.5	
Surface Water Use	0 1 2 3	3	6	9		
Distance to a Sensitive Environment	0 1 2 3	2	0	6		
Population Served/Distance to Water Intake Downstream	<div style="display: inline-block; vertical-align: middle;"> 0 4 6 8 10 12 16 18 20 24 30 32 35 40 </div>	1	0	40		
Total Targets Score			6	55		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			6084	64,350		
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = 9.45$			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

20147.667

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)	
1 Observed Release	0 45	1	D	45	5.1	
Date and Location:						
Sampling Protocol:						
If line 1 is 0, the $S_a = 0$. Enter on line 5 . If line 1 is 45, then proceed to line 2 .						
2 Waste Characteristics					5.2	
Reactivity and Incompatibility	0 1 2 3	1		3		
Toxicity	0 1 2 3	3		9		
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8		
Total Waste Characteristics Score				20		
3 Targets					5.3	
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30		
Distance to Sensitive Environment	0 1 2 3	2		6		
Land Use	0 1 2 3	1		3		
Total Targets Score				39		
4 Multiply 1 x 2 x 3				35,100		
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 6$			

FIGURE 9
AIR ROUTE WORK SHEET

	s	s ²
Groundwater Route Score (S _{gw})	25.85	668.22
Surface Water Route Score (S _{sw})	9.45	89.30
Air Route Score (S _a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		757.52
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		27.52
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		15.91

2341.65

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi- plier	Score	Max. Score	Ref. (Section)
1 Containment	1	3	1		3	7.1
2 Waste Characteristics						7.2
Direct Evidence	0	3	1		3	
Ignitability	0	1 2 3	1		3	
Reactivity	0	1 2 3	1		3	
Incompatibility	0	1 2 3	1		3	
Hazardous Waste Quantity	0	1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score					20	
3 Targets						7.3
Distance to Nearest Population	0	1 2 3 4 5	1		5	
Distance to Nearest Building	0	1 2 3	1		3	
Distance to Sensitive Environment	0	1 2 3	1		3	
Land Use	0	1 2 3	1		3	
Population Within 2-Mile Radius	0	1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0	1 2 3 4 5	1		5	
Total Targets Score					24	
4 Multiply 1 x 2 x 3					1,440	
5 Divide line 4 by 1,440 and multiply by 100				SFE =		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

Direct Contact Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)	
1 Observed Incident	<u>0</u> 45	1	<u>0</u>	45	8.1	
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2						
2 Accessibility	0 1 2 <u>3</u>	1	<u>3</u>	3	8.2	
3 Containment	0 <u>15</u>	1	<u>15</u>	15	8.3	
4 Waste Characteristics Toxicity	0 1 2 <u>3</u>	5	<u>15</u>	15	8.4	
5 Targets					8.5	
Population Within a 1-Mile Radius	0 1 2 3 4 5	4	<u>4</u>	20		
Distance to a Critical Habitat	<u>0</u> 1 2 3	4	<u>0</u>	12		
Total Targets Score					32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			<u>2700</u>	21,600		
7 Divide line 6 by 21,600 and multiply by 100			S _{DC} = <u>12.50</u>			

FIGURE 12
DIRECT CONTACT WORK SHEET